REMARKS/ARGUMENTS

In the specification, the last paragraph on Page 3 is amended to correct an improper conversion of the calender pressure from tonnes per square inch into Newtons per square meter. The correct conversion is 50 tonnes per square inch is equal to 772 x 10^6 Newtons per square meter.

Claim 1 is amended. Claims 2 through 9 remain in this application. Support for amended Claim 1 is found at least on page 3 at the bottom and bridging to page 4 and in the example of the invention of the specification as originally filed. No new matter is added by way of this amendment.

Rejection under 35 U.S.C. 102

Claims 1-3 and 8-9 stand rejected under 35 U.S.C. 103(a) as obvious over Nakajima et al., US 6,207,600 B1. Instant Claim 1 (currently amended) now recites a fabric consisting of a single woven layer of synthetic bicomponent filaments, wherein the fabric has been calendered on at least one surface thereof <u>at a speed in a range from 4 to 24 meters per minute, at a temperature of about 140°C to about 195°C while maintaining a pressure of about 45 tonnes per square inch to about 55 tonnes per square inch</u> and the fabric has an air permeability, of less than 6 cubic centimeters persecond persquare centimeter ($cm^3/cm^2/sec$), measured at a static pressure of 10 millimeters of water. Amended Claim 1 sets forth limitations pertaining to the calendering conditions (speed, temperature and pressure between the calender rolls) which provide for the instantly claimed air permeability characteristics.

The Examiner maintains examples 4 and 6 of Nakajima et al., teach the forming and calendering of nonwoven fabrics hence making the calendering of a woven fabric formed from composite monofilaments, as taught in Example 12, obvious. Applicant maintains that the calendering process alluded to in examples 4 and 6 teach the skilled person little about calendering a fabric to achieve a specified low air permeability. For example, the only temperature and pressure data provided by Nakajima et al. which might be regarded as relevant to a calender process is that of Example 6. In Example 6,

Nakajima et al. state the "material was heat-treated at 135°C by use of a calendering apparatus to obtain a melt-adhered non-woven." This example is silent as to calender pressure. The skilled person searching for guidance on the air permeability of a fabric processed as in Example 6 of Nakajima et al. finds only this characterization: "the non-woven fabric is porous." There is nothing to conclude how porous or how permeable to air such a fabric is. With regard to the through-air heated and melt-adhered woven monofilaments in Example 12 of Nakajima et al., the woven is called a "net." The woven net of Example 12 has a "weaving density of 9 warps/50 mm and 9 wefts/50 mm" according to Nakajima et al. Such a weaving density provides a net with monofilaments on 5.5 mm centers. The skilled person readily appreciates that such a woven structure is an open net structure through which air and water easily pass through. Calendering such a woven of monofilaments would not provide the Applicants fabric. Such a woven structure obtained in Example 12 of Nakajima et al. is entirely contrary to the objectives sought for the woven structures instantly claimed.

Applicant maintains the fabric basis weight teachings of Nakajima et al. do nothing to render Applicant's range of fabric basis weights obvious. The instant range is a selection suited to garment construction from fabric having the instant range of air permeability obtained by the recited calendering process conditions of instant Claim 1.

Applicant maintains the composite or bicomponent teachings of Nakajima et al. do nothing to render Applicant's bicomponent filaments obvious, for the reason that Nakajima et al. requires their composite or bicomponent filaments to contain polypropylene as one component. Each example of Nakajima et al. teaching bicomponents contains polypropylene as one component. By contrast, Applicant's bicomponents are selected from the group consisting of polyester and polyamides filaments and there mixtures.

Applicant maintains the teachings of Nakajima et al. as they relate to UV absorbing agents, and forming various garments do nothing to render the instant claims obvious for the reasons that no polypropylene resins comprise components of the instantly claimed, calendered woven fabrics of low air permeability.

With regard to the teachings of Nakajima et al. as they relate to air permeability, no guidance is given to the skilled person as to how the calendering process is applied to a woven. Only melt-blown nonwovens are alluded to as being calendered by Nakajima et al. in examples 4 and 6. Applicant asserts that the process taught by

Nakajima et al. in examples 4 and 6 is in fact "Calender bonding" a method of thermally bonding nonwoven structures using heated calender rolls to fuse low-temperature melting fibers in the web. Sometimes a patterned roll is used to bond the web (of the nonwoven) only at specific points. By contrast, "calendering" is a mechanical finishing process for fabrics to produce special effects, such as high luster, glazing, moiré, and embossed effects. In this operation (calendering), the fabric is passed between heated rolls under pressure. These definitions above of "calender bonding" and "calendering" are found in the *Dictionary fo Fiber and Textile Technology, 7th Edition*, on Page 28, published by KoSa Communications and Public Affairs, PO Box 32414, Charlotte, North Carolina 28232, (1999). Further confirmation that the calender processing alluded to by Nakajima et al. is, in fact, "calender bonding" is that the webs, non-wovens and woven nets exemplified all contain a low melt temperature fiber, polypropylene. Polypropylene melts in a range of 160°C to 168°C (see Nakajima et al. Column 4 at lines 52-52) and would be susceptible to low temperature melt consolidation during a "calender bonding" process. For reasons, of at least the distinction between calender bonding with heat and calendering with heat and pressure, it is maintained that only a calendering process using the temperatures and pressures recited for the materials of the instant claims can achieve the recited air permeabilties.

Applicant respectfully submits the disclosures of Nakajima et al. are not anticipating of Claim 1 as currently amended or claims 2-3 and 8-9 which ultimately depend from the currently amended Claim 1.

Rejection under 35 U.S.C. 103

Claims 7 stands rejected under 35 U.S.C. 103(a) as being obvious over Nakajima et al. (US 6,207,600) in view of JP 05148703A. Applicant respectfully submits Claim 7 which ultimately depends from Claim 1 (currently amended), is nonobvious in view of the combination of JP 05148703A and Nakajima et al. for the foregoing reasons. The bicomponent (and composite) filaments of Nakajima et al. contain as one component a low melting polymer, polypropylene. Polypropylene is not a resin selected as a component of the bicomponent filaments of the instant invention and cannot therefore be found in combined teachings of Nakajima et al. and JP 05148703A.

CONCLUSION

This was meant to be a complete reply to the action made final. Applicant respectfully submits that each and every rejection is overcome and maintains that claims are in condition for allowance.

Applicant respectfully requests the Examiner's issuance of a Notice of Allowance.

Should the Examiner have questions, Applicant's representative would welcome an opportunity to discuss any questions. Any fees associated with this amendment should be charge to Deposit Account 503223 (INVISTA).

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Respectfully submitted,

ROBERT B. FURR, JR.
ATTORNEY FOR APPLICANTS
REGISTRATION NO. 32,985
TELEPHONE: 302-683-3316
FACSIMILE: 302-683-3473